

A rose is a Rose...

Summer's here! Vacation time! For somebody. Well, thank goodness Rose decided to stay on - we need the extra help. Ok, Rose...Rose? Where is she? Gone for a month!!?? Put she's only been here a short while. What do you expect when you work with East Coast refugees? Well, Donna can take up the slack, right Donna? Donna...? Oh, she's gone for a couple weeks back east also? If you see a couple of relaxed women in Connecticut, tell 'em we're fine and to write us at Happy Dale Sanitarium... June 1982



PO Box 1087,
Santa Barbara, CA 93109
(805) 963-1066

* Filename English Translation PMODE PCLEAR Locations *
*
* FIRECOV Fireworks Cover 4 4 7 & 145 *
* MARTIAN Martian Madness (2) (4) 26 & 160 *
* FINDIT Find It 4 (4) 45 & 175 *
* STRING String Art 3/4 4 65 & 190 *
* SCRABBLE Scrambler 0 1 79 & 201 *
* DISKEDIT Disk Edit (32K disk only) (0) (1) 108 & 224 *
* SPACEACE Space Ace (CLOADM - No disk) (2) (4) 132 & 243 *
*
* Locations are for the R/S CTR-80. If the first copy of a program *
* won't load, try the second. If neither copy loads, return the tape *
* for disciplining and a prompt replacement. If you get an UM, FC, *
* or SN error while loading or running a program, you probably have *
* to enter the PMODE and PCLEAR values for the program directly from *
* the keyboard. (Values in parenthesis are not set in the program). *
* * These programs may use high speed. Be sure that the computer is *
* slowed down again before doing I/O to tape (POKE 65494,0). *
*

Fireworks Cover for the 4th of July! Yeah, I know this is the June issue, but this way you can have this running on the 4th (you KNOW that we won't have the July issue out by then...).

Just a little madness for the masses. Martian Madness is a poor man's Space Invader type game written in BASIC. For a BASIC program, there is a LOT of animation on the screen! If your machine works in high speed, you can add the following line to the program to make it more interesting:

110 POKE 65495,0

Note - if you add the above line to the program, be sure to do a 'POKE 65494,0'<enter> from the keyboard when you are done with the game to slow CoCo back down.

I lost it, so you Find It! A grid is drawn, you start out in the upper left hand corner of the grid, and you attempt to find the secret square by using the arrow keys to move. When you stop, an arrow shows you the general direction of the secret square. The whole thing is timed, so luck and good guesswork are required!

You've probably seen some of the pretty graphic art used in our cover programs. Wouldn't it be nice to have a little control over the finished design? String Art lets you play with the various PMODE, SCREEN, stepping, balance, etc. parameters that are used in creating pretty patterns with straight lines. This is one program where you sit down and experiment. One picture may look like last night's leftovers, and with a minor change evolve into this

ning's sunrise. And as you become engrossed in playing Picasso, you may find yourself watching tomorrow's sunrise...

Before you get all mixed up by an OM error, type 'PMODE 0: PCLEAR !<enter>' from the keyboard. Now you are ready to CLOAD Scrambler. What for? Because you want to put lists of presidents, Roman numerals, or leading NFL rushers (football players?) in order! You can put them in either ascending or descending order - all at the touch of the arrow keys. The up and down arrow keys move you up and down the list, the right arrow takes an item out of the list, and the left arrow reinserts the item in front of the item on the left.

If you don't want to arrange NFL rushers, you can create your own lists for Scrambler to scramble and for you to sort! Just change the number of lists in line 1840 (if you want a different number than the 3 that come with the program), the number of items in the list in lines 1850 to 1865, and the items themselves in the data statements (lines 1880 on). That's right, to change the lists you have to do some simple program modification. But the author made it easier by commenting the program well, so his logic is easy to follow.

If you have disks, it is sometimes nice to be able to directly look at and even modify the data that is stored on them. Disk Edit is a tool for doing just that! The instructions in the program are thorough and are easily accessible in case you have questions while running the program. The main thing to remember is that you can modify the BUFFER (the image of the disk sector that is displayed on the screen) all you want to. It does not change what is on the disk until you WRITE it to the disk. However, once you have written to the disk, the old sector that was there is gone forever. If you lose the data on a disk because you wrote over the directory or something, be thankful that you have a backup... or KICK yourself hard for not having a backup! By the way, if you have a 16K disk system, you can use Disk Edit, but you must type 'PMODE 0: PCLEAR !<enter>' from the keyboard first.

Gimme a fly swatter - I wanna play Space Ace! What's a bug killer got to do with the outer limits? The ships in Space Ace dance like flies (and they're just as pesky). You use the left and right arrow keys to move your ship, and the up arrow key to fire. This is a machine language program, so to load it type 'CLOADM"SPACEACE"!<enter>'. Then type 'EXEC'<enter> to play!

The program loads into the screen display area and on into the first area normally used by the graphics pages and BASIC programs (user RAM). If you have a disk system, the first 2048 bytes of the user RAM is used by the DOS, so this program will NOT work on a disk system (even if Jon Shirley said that the DOS "...does not take up RAM." - May 1982 TRS-80 Microcomputer News). If you wish to make a backup of Space Ace without the title page, just load it in and type 'CSAVEM"SPACEACE",2048,3991,3667!<enter>'. If you wish to make a copy with the title page intact, you have to type in and RUN the following routine:

```
10 PCLEAR 4: REM SO SPACE ACE WON'T WRITE OVER THIS ROUTINE
20 CLOADM"SPACEACE": REM GET THE TITLE PAGE
30 IF INKEY$="" THEN 30: REM WAIT FOR A KEY TO BE HIT
40 CSAVEM"SPACEACE",1024,3991,3667: REM SAVE TO TAPE
50 GOTO 20: REM DO ANOTHER COPY OR HIT THE BREAK KEY
      CHANGE TO STOP! END
```

Putting a hex on addition...

Lesson 1 - when you add 800 hex to 1600 hex you do NOT get 2400 hex. You get 1E00. Remember that, Dave! And remember to tell those people that tried to put last month's Notebook on disk that the '&H1600's in line 5 should have been changed to '&H1E00's (not '&H2400's). And the saving of Notebook Description to disk should have been given as 'SAVEM"NOTEDESC",&H1E00,&H7FFF,&H1E00!<enter>.

Also, Don McGarry of Centerport, New York mentioned that you can get lower case with Notebook by changing the following lines:

```
30 I=ASC(I$): IF I>96 AND I<123 THEN I=I-96 ELSE IF I<KC THEN I=I-KC
62 I2=PEEK(PC+I*32+I!): IF I2<27 THEN I2=I2+96 ELSE IF I2>95 THEN I2=I2-64
```

Copy this down...

If you have a disk system with only one disk, you can make a copy of a program on one disk and put it on another disk by simply typing 'COPY "filename/ext"'<enter>. You will be prompted when to swap the disks in and out. Nice going, Tandy, and thanks to Edgar Poulin of Sherbrooke, Quebec, Canada for pointing this out.

May I say it again, may I?

Many people have called looking for specific programs and/or specialized information. I try to help, but I usually end up telling them to get copies of the RAINBOW and/or Color Computer News (see their ads in these pages) because that's what I do. I can't stress enough that if you are interested in really using your CoCo, these magazines are invaluable. Ads for new Color Computer goodies will appear there first, programming hints are found in their pages, and anything else that concerns you and your computer will probably be mentioned there.

Spring fever...

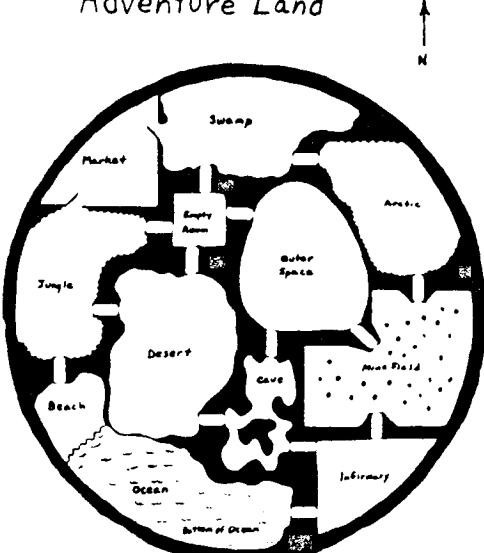
Thanks to Alexander Benenson of New York, New York, Lazkey makes these pages again! If you have a disk system, you can make a change to Lazkey that will allow you to load programs from disk without having to do that PEEK-POKE shuffle mentioned in last month's blue sheets:

- 1) Load (but do not EXEC) Lazkey as you normally would.
- 2) If you have 16K type 'POKE &H3FFA,&HC5: POKE &H3FFB,&H8F'<enter>.
If you have 32K type 'POKE &H7FFA,&HC5: POKE &H7FFB,&H8F'<enter>.
- 3) Save your modified Lazkey to disk and you (may) never have to worry about it again.

Getting in high gear...

You say that your CoCo won't take a Vitamin E POKE (POKE 65495,0). There may be a way to get it to run in high speed - even if you have a disk system! Contrary to what has been said in the past, putting faster 6821s or a faster 6809 in there won't do it. The March and June 82 issues of the Rainbow, however, suggested that you might try removing capacitors 73, 75, and 85 from inside CoCo. NOTES!!! - This is not guaranteed to work, it is mentioned for those of you who LIKE to hardware hack, it WILL void any warranty you have on the machine, and it may introduce some interference in your video screen.

Map for last month's Ultimate Adventure



Speeding outta here...

Dave
ed.

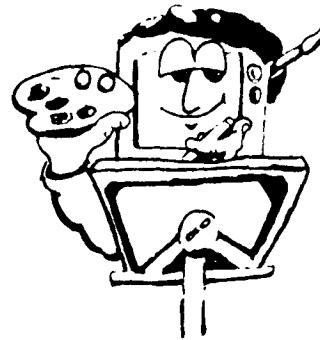
EZ FILE

Wizard Software

1010 LEIGH ROAD
POMPANO BEACH, FLORIDA 33064

With one disk drive, your Radio Shack Color Computer is capable of many things that you probably have never used before. In order to tap your computer's hidden capability, you need more than a disk drive. You need E-Z File. The same powerful, efficient, and user-friendly program that was a smash success with the Apple Computer is now available for the Radio Shack Color Computer ... and it's better than ever! Although it is very easy to use, it still puts YOU in control. You create your files for anything from business transactions to stamp collections. Then, you enter as much or as little data as you like. You may save, load, list, edit, and print files. Furthermore, E-Z File has full cursor control, editing, plus a complete file search or replace function to make your text editing easier. And if time is important, you will be glad to know that it is all done with the lightning speed of the Color Computer Disk Drive. So whether you need to organize your laboratory data, or simply would like to keep track of your recipes, this program is for you. Only \$24.95 on disk. Please specify the memory size when ordering. Send check or money order, and allow two weeks for delivery. You will not be disappointed.

Color Computer News



Are you tired of searching the latest magazine for articles about your new Color Computer? When was the last time you saw a great sounding program listing only to discover that it's for the Model I and it's too complex to translate? Do you feel that you are all alone in a sea of Z-80's? On finding an ad for a Color

Computer program did you mail your hard earned cash only to receive a turkey because the magazine the ad appeared in doesn't review Color Computer Software? If you have any of these symptoms you're suffering from Color Computer Blues!

But take heart there is a cure!

It's COLOR COMPUTER NEWS.

The monthly magazine for Color Computer owners and only Color Computer owners. CCN contains the full range of essential elements for relief of CC Blues. Ingredients include: comments to the ROMS, games, program listings, product reviews, and general interest articles on such goodies as games, personal finances, a Kid's page and other subjects.

The price for 12 monthly treatments is only \$21.00 and is available from:



**Mail
Today!**

REMarkable Software

P.O. Box 1192
Muskegon, MI 49443

NAME _____

ADDRESS _____

CITY _____ State _____ Zip _____

Allow 8-10 weeks for 1st issue.

CCN

Win \$500!

The First National Computer Owner Survey 50 Second Prizes of \$10 each!

In order to keep developing and bringing you very special hardware, software and publications, we've been commissioned to find out what you, the customer, wants and needs.

In addition to contributing to the computer owners' data base, you have a chance to win \$500...just for filling out this survey.

JUST TAKE A FEW MINUTES, ANSWER EVERY APPLICABLE QUESTION - YOU MUST TO BE ELIGIBLE - AND MAIL TO US NO LATER THAN OCTOBER 31, 1982. FOR 20¢ YOU COULD WIN HUNDREDS.

Entries must be computer owners or users and answer every applicable question. A random drawing, eligibility approval and list of winners will be verified by a Notary Public. Winners will be notified by Dec. 31, 1982. Grand Prize winner gives IRV Brechner Enterprises the right to use name and photo in future surveys and advertising. No purchase necessary. Limit one entry per person. Entries must be postmarked no later than Oct. 31, 1982 and reach us by Nov. 15, 1982. Prizes include one cash award of \$500 and 50 cash prizes of \$10 each. All survey entries become property of IRV Brechner Enterprises, none will be returned. All prizes will be awarded by Nov. 31, 1982. All Federal, State and Local taxes are responsibility of the winner. This contest void where prohibited by law. For a prize winner list send a self-addressed stamped envelope to IRV Brechner Enterprises, Box 264WOB, West Orange, N.J. 07052.

NAME	ADDRESS																						
CITY/STATE/ZIP	AGE	SEX	Circle: SINGLE MARRIED # CHILDREN																				
COMPUTERS(S) YOU OWN OR USE (Circle)	10	11	12	13	HEWLETT-PACKARD	HEATH	ZENITH	OSBORNE															
XEROX	14	DEC	15	TEXAS INST.	20	NORTH STAR	21	COMMODORE	22	VECTOR	23	CROMEMCO	24	OTHER	25	OWNED HOW LONG	26						
* DISK DRIVES	27	OWN HARD DISK?	28	OWN MODEM?	29	PRINTER BRAND	30	MONITOR BRAND	31														
APPROX. # DISKETTES OWNED	32	BRAND PREFERENCE	33	OPERATING SYSTEM(S)	34																		
AMOUNT OF MEMORY (Circle)	35	8K	36	16K	37	24K	38	32K	39	45K	40	64K	41	128K	42	MORE	43						
LANGUAGES YOU PROGRAM WITH OR USE (Circle)	44	BASIC	45	FORTRAN	46	COBOL	47	MACHINE	48	ASSEMBLER	49	MONITORS	50										
FORTH	51	ALGOL	52	PASCAL	53	C	54	ADA	55	APL	56	LISP	57	CAI	58	DO YOU WRITE YOUR OWN SOFTWARE (Circle)	59	YES	60				
APPROXIMATE NUMBER OF SOFTWARE PROGRAMS YOU OWN PER CATEGORY:																							
EDUCATION	60	BUSINESS	61	GAMES	62	SCIENTIFIC	63																
HOBBY	64	HOME USE	65	OTHER	66																		
YOUR PROFESSION	67	PRIMARY USE FOR YOUR COMPUTER							68														
APPROX ANNUAL INCOME (Optional)	69	MOST RECENT EDUCATION LEVEL (Circle)			70	HIGH SCHOOL	71	SOME COLLEGE															
COLLEGE GRADUATE	72	SOME GRADUATE SCHOOL	73	MASTER'S DEGREE	74	OTHER	75																
WHICH PUBLICATIONS DO YOU SUBSCRIBE TO OR READ REGULARLY (Circle all that apply)	76	COMPUTE	77	COMPUTERWORLD	78	CREATIVE COMPUTING	79	DESKTOP COMPUTING	80	INTERFACE AGE	81	PEELINGS H	82	POPULAR COMPUTING	83	PERSONAL COMPUTING	84	APPLE ORCHARD	85	BYTE	86	CALL-APPLE	87
MICROCOMPUTING	88	MICRO	89	MICROSYSTEMS	90	NIBBLE	91	PEELINGS H	92	POPULAR COMPUTING	93	PERSONAL COMPUTING	94		95		96		97				
SOFTSIDE	92	OTHERS	93		94		95		96		97		98		99		100		101				
APPROX # COMPUTER BOOKS OWNED	102		103		104		105		106		107		108		109		110		111				

WHAT NEW PRODUCTS, IDEAS, HARDWARE, SOFTWARE, PUBLICATIONS, ETC. DO YOU WISH TO SEE COME ABOUT?
Please be specific and use additional paper if necessary. Staple to survey when completed.

Signature

Mail all completed surveys by Oct. 31, 1982 to:
NATIONAL COMPUTER OWNERS' SURVEY • BOX 264WOB • WEST ORANGE, N.J. 07052

*Apple, Atari, TRS-80 IBM PC, Hewlett-Packard, Heath, Zenith, Osborne, Xerox, DEC, Texas Inst., North Star, Commodore, Vector & Cromemco are all registered trademarks

the RAINBOW—the premier monthly Color Computer magazine one subscriber called a "pot of gold!"

We'll happily, cheerfully and instantly refund your money if, after seeing your first issue, you don't agree 100 percent.

The programs you'll get in the **RAINBOW** are its heart and soul. No junk here . . . you'll find some of the most imaginative games you've ever seen. But games aren't everything. Past issues have included mortgage amortization (which also teaches youngsters the meanings of the terms used to determine money at interest), an on-screen gin-scorer (for Hollywood gin, no less), a grader program to help teachers keep up with students' grades (or for the students to keep up with their own), a quiz program that will allow you to program any question and answer format into memory . . . just right for test-studying. Balance your checkbook? Figure income tax? Fun programs, useful programs and helpful programs: **RAINBOW** programs for your use!

Subscribe to the **RAINBOW** today. A 12-month subscription is only \$12.

The RAINBOW
will make your Color Computer more useful than ever before.

- Game Programs
- Useful Utilities
- Honest Product Reviews
- Hints and Tips
- Software discounts

© 1986 Computer Plus Co.

The RAINBOW
5803 Timber Ridge Dr.
Prospect, KY 40059

Gentlemen:

YES! Sign me up for a one-year (12 issues) subscription to the **RAINBOW**. My \$12 is enclosed.

Name _____

Address _____

City _____

State _____

Zip _____

Payment enclosed

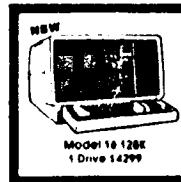
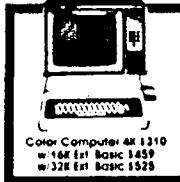
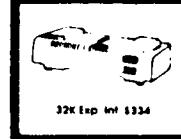
Charge my VISA Account # _____ Charge my MasterCard Account # _____

Signature _____ Card Expiration Date _____ INTERBANK # _____

Subscription to the **RAINBOW** are \$12 per year in the United States. Canadian and Mexican rates are \$16 per year. Surface mail to other countries is \$26, air mail to other countries is \$44. All subscriptions begin with the current issue.

From Computer Plus to YOU . . .

PLUS after PLUS after PLUS



BUY DIRECT

Here are just a few of our line offers . . . call TOLL FREE for full information.

COMPUTERS

Model II 64K

Model II 4K LEV I

Model II 16K

Model II 32K

Model II 64K

Model II 48K

2 Disc & PS32 C

Model II 48K

2 Disc & PS232 C

Color Computer 4K

Color Computer 16K

w. extended BASIC

Color Computer 32K

w. extended BASIC

Color Computer 32K-64K

w. extended BASIC

Color Computer 2

Model II 16K 128K

Model II 16K 208K

PERIPHERALS

*Expansion Interface 32K

16K RAM NEC 200 N S chips

DI 1 Data Terminal

64K Ram Chips

MODEMS

Auto Ans. Dial

Telephone Interface

RS Modem 1 D.C.

RS Modem 1 D.C.

PRINTERS

Daisy Wheel II

Epson MX80

Epson MX80 F1

Epson MX100

Line Printer V11

Line Printer V11

Microline 80

Microline 82A

Microline 83A

DISK DRIVES

Microline 84 Parallel

P.C. Printer Printer

8 S. Model III ST Drive

Fox Tandon 40 Track MI

8 S. 1 Drive Exp. MI

Color Computer Drive 0

Primary Hard Disk

SOFTWARE

R.S. Software 10% off list

Newdos 80 Mill

Color Computer Flex D.O.S.

ITC

Verbatim 5. Double Density

Verbatim 8. Data Lite

Cr. BOA recorder

C. C. Joysticks

Computer Plus Home Equipment

14K 8 A.M. - 14K 16K

160 Day Computer Plus Warranty

160 S. Drive 6 London Drive

Wellesley, MA 01842

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-1234

800-227-12